

CPC**COOPERATIVE PATENT CLASSIFICATION****B08B****CLEANING IN GENERAL; PREVENTION OF FOULING IN GENERAL**

(brushes A46; devices for domestic or like cleaning A47L; { cleaning golf-clubs or golf accessories [A63B 57/0087](#); cleaning grips of bats on rackets [A63B 59/0062](#)}; separation of particles from liquids or gases B01D; separation of solids B03, B07; spraying or applying liquids or other fluent materials to surfaces in general B05; cleaning devices for conveyers [B65G 45/10](#); concurrent cleaning, filling and closing of bottles [B67C 7/00](#); inhibiting corrosion or incrustation in general C23; cleaning streets, permanent ways, beaches or land E01H; parts, details or accessories of swimming or splash baths or pools, specially adapted for cleaning [E04H 4/16](#); preventing or removing electrostatic charges H05F)

NOTE

[A61G 9/02](#), filters, semi-permeable membranes B01D, castings and moulds [B22D 29/00](#), vehicles B60S, coke ovens [C10B 43/00](#), building forms E04G, boilers F22, combustion apparatus F23, furnaces F27; the general nature of the cleaning, e.g. preparing for sugar manufacture A23N, domestic cleaning A47L, treatment of textiles D06, laundry D06F, air-conditioning F24F; the particular operation performed, e.g. filtering B01D, separating of solids B03, B07, sand-blasting B24C; the particular apparatus or device, e.g. brushes A46B, mops A47L, centrifuges B04, hand tools B25 { devices for cleaning paint-applying hand tools after use [B44D 3/00D](#)}; the substance cleaned, e.g. metals B21C, C23, water C02, glass C03B, leather C14B, textile fibres D01; the substance removed (or prevented from depositing or forming) e.g. { removing paint [B44D 3/00](#), e.g. } implements or apparatus for removing dry paint from surfaces [B44D 3/16](#); chemical paint-removers [C09D 9/00](#); preventing rust C23F; the substance used, e.g. macromolecular compounds or compositions C08, anti-icing materials C09K, detergents C11D; the operation in connection with which cleaning is done, e.g. metal rolling B21B, metal boring B23B, soldering B23K, textile fabrication D01G, H, D03J, D04B; the surroundings of a surface to be cleaned or kept clean, e.g. water in a boiler C02F, air in a room F24F.

B08B 1/00

Cleaning by methods involving the use of tools, brushes, or analogous members
([B08B 3/12](#), [B08B 6/00](#), {[B08B 7/02](#)}, [B08B 9/00](#) take precedence)

- B08B 1/001 . { characterised by the type of cleaning tool}
- B08B 1/002 . . { Brushes}
- B08B 1/003 . . { Swabs}
- B08B 1/005 . . { Scrapers}
- B08B 1/006 . . { Wipes}
- B08B 1/007 . {having means to clean the cleaning members before, during or after use}
- B08B 1/008 . {using translating operative members}
- B08B 1/02 . Cleaning travelling work, e.g. a web, articles on a conveyer

B08B 1/04 . using rotary operative members ([B08B 1/02](#) takes precedence)

B08B 3/00 **Cleaning by methods involving the use or presence of liquid or steam** ([B08B 9/00](#) takes precedence)

B08B 3/003 . {Cleaning involving contact with foam}

B08B 3/006 . {Cabinets or cupboards specially adapted for cleaning articles by hand}

B08B 3/02 . Cleaning by the force of jets or sprays

B08B 3/022 . . {Cleaning travelling work ([B08B 3/042](#) takes precedence)}

B08B 3/024 . . {Cleaning by means of spray elements moving over the surface to be cleaned}

B08B 3/026 . . {Cleaning by making use of hand-held spray guns; Fluid preparations therefor}

B08B 3/028 . . . {Spray guns}

WARNING

This group is no longer used for classification. Documents are in the process of being reclassified to subclass [B05B](#)

B08B 3/04 . Cleaning involving contact with liquid

B08B 3/041 . . {Cleaning travelling work}

B08B 3/042 . . . {the loose articles or bulk material travelling gradually through a drum or other container, e.g. by helix or gravity}

B08B 3/044 . . { using agitated containers in which the liquid and articles or material are placed (by means of ultrasonic vibrations [B08B 3/12](#); cleaning casks or barrels by agitating [B08B 9/12D](#); mixers with shaking, oscillating or vibrating mechanisms [B01F 11/00](#))}

B08B 3/045 . . {using perforated containers, e.g. baskets, or racks immersed and agitated in a liquid bath (using perforated drums [B08B 3/06](#))}

B08B 3/047 . . . {Containers specially adapted therefor}

B08B 3/048 . . { Overflow-type cleaning, e.g. tanks in which the liquid flows over the tank in which the articles are placed}

B08B 3/06 . . using perforated drums in which the article or material is placed ({[B08B 3/042](#) takes precedence})

B08B 3/08 . . the liquid having chemical or dissolving effect (substances used, see the relevant classes)

B08B 3/10 . . with additional treatment of the liquid or of the object being cleaned, e.g. by heat, by electricity, by vibration

B08B 3/102 . . . {with means for agitating the liquid (by agitating the container [B08B 3/042](#), [B08B 3/044](#), [B08B 3/045](#), [B08B 3/06](#))}

B08B 3/104 {using propellers}

B08B 3/106 . . . { by boiling the liquid}

B08B 3/108 . . . { by lowering and raising the level of the cleaning liquid}

B08B 3/12 . . . by sonic or ultrasonic vibrations (washing or rinsing machines for crockery or tableware using sonic or ultrasonic waves [A47L 15/13](#); of natural teeth, of prostheses using ultrasonic techniques similar to those used for natural

- [A61C 17/20](#); application of ultrasonic vibrations to chemical, physical, or physico-chemical processes in general [B01J 19/10](#))
- B08B 3/123 {Cleaning travelling work, e.g. webs, articles on a conveyer (conveyers [B65G](#); handling webs [B65H](#))}
- B08B 3/126 {in particular moving bottles}
- B08B 3/14 . . . Removing waste, e.g. labels, from cleaning liquid; {Regenerating cleaning liquids}(treatment of water in general [C02F](#))
- B08B 5/00** **Cleaning by methods involving the use of air flow or gas flow** ([B08B 6/00](#) takes precedence)
- B08B 5/02 . Cleaning by the force of jets, e.g. blowing-out cavities {(airguns or nozzles per se [B05B 1/005](#))}
- B08B 5/023 . . { Cleaning travelling work}
- B08B 5/026 . . . { Cleaning moving webs}
- B08B 5/04 . Cleaning by suction, with or without auxiliary action ({[B08B 9/03](#) takes precedence;}(suction cleaners [A47L](#))}
- B08B 5/043 . . { Cleaning travelling work}
- B08B 5/046 . . . { Cleaning moving webs}
- B08B 6/00** **Cleaning by electrostatic means** (domestic cleaning implements functioning electrostatically [A47L 13/40](#); cleaning of grooved record carriers [G11B 3/58](#))
- B08B 7/00** **Cleaning by methods not provided for in a single other subclass or a single group in this subclass**
- B08B 7/0007 . {by explosions}
- B08B 7/0014 . {by incorporation in a layer which is removed with the contaminants}
- B08B 7/0021 . {by liquid gases or supercritical fluids}
- B08B 7/0028 . {by adhesive surfaces}
- B08B 7/0035 . {by radiant energy, e.g. UV, laser, light beam or the like}
- B08B 7/0042 . . {by laser}
- B08B 7/005 . . { by infrared radiation}
- B08B 7/0057 . . { by ultraviolet radiation}
- B08B 7/0064 . {by temperature changes}
- B08B 7/0071 . . {by heating ([B08B 7/0035](#) takes precedence)}
- B08B 7/0078 . . . { in a fluidized bed}
- B08B 7/0085 . . . { by pyrolysis}
- B08B 7/0092 . . {by cooling}
- B08B 7/02 . by distortion, beating, or vibration of the surface to be cleaned {([B08B 7/0007](#) takes

- [precedence\)}](#)
- B08B 7/022 .. {Needle scalers}
- B08B 7/024 .. {Rotary scalers}
- B08B 7/026 .. { Using sound waves}
- B08B 7/028 ... { Using ultrasounds}
- B08B 7/04 . by a combination of operations

B08B 9/00 **Cleaning hollow articles by methods or apparatus specially adapted thereto**
([B08B 3/12](#), [B08B 6/00](#) take precedence)

- B08B 9/02 . Cleaning pipes or tubes or systems of pipes or tubes ([apparatus for cleaning metal pipes by chemical methods C23G 3/04](#); {removing obstructions in waste pipes or sinks [E03C 1/30](#); cleaning sewer pipes [E03F 9/00](#); cleaning boreholes or wells [E21B 37/00](#); cleaning furnace tubes, flues, chimneys [F23J 3/02](#); cleaning heat-transfer conduits, e.g. water tubes of boilers [F28G](#)})
- B08B 9/021 .. {Cleaning pipe ends or pipe fittings, e.g. before soldering ([grinding tube ends B24B 9/007](#))}
- B08B 9/023 .. Cleaning the external surface ([B08B 9/021](#) takes precedence)
- B08B 9/027 .. Cleaning the internal surfaces; Removal of blockages
- B08B 9/032 ... by the mechanical action of a moving fluid, e.g. by flushing ([B08B 9/04](#) takes precedence; { by fluid jets mounted on cleaning devices [B08B 9/0433](#)})
- B08B 9/0321 { using pressurised, pulsating or purging fluid ([E04F 17/12B](#) takes precedence)}
- B08B 9/0322 { in combination with a plug, e.g. inflatable mole, to isolate a part of the tube ([plugging pigs for stopping flow in pipes F16L 55/1283](#))}
- B08B 9/0323 { Arrangements specially designed for simultaneous and parallel cleaning of a plurality of conduits}
- B08B 9/0325 { Control mechanisms therefor}
- B08B 9/0326 { Using pulsations}
- B08B 9/0327 { the fluid being in the form of a mist}
- B08B 9/0328 { by purging the pipe with a gas or a mixture of gas and liquid}
- B08B 9/035 by suction
- B08B 9/04 ... using cleaning devices introduced into and moved along the pipes

WARNING

Group [B08B 9/04](#) and subgroups are not complete. See also [B08B 9/02](#) and subgroups

- B08B 9/043 moved by externally powered mechanical linkage, e.g. pushed or drawn through the pipes
- B08B 9/0433 { provided exclusively with fluid jets as cleaning tools}
- B08B 9/0436 { provided with mechanical cleaning tools, e.g. scrapers, with or without additional fluid jets ([B08B 9/045](#), [B08B 9/047](#) take precedence)}
- B08B 9/045 the cleaning devices being rotated while moved {, e.g. flexible rotating shaft or "snake"}([B08B 9/047](#) takes precedence)

- B08B 9/047 the cleaning devices having { internal} motors [e.g. turbines] for powering cleaning tools
- B08B 9/049 having self-contained propelling means for moving the cleaning devices along the pipes { i.e. self-propelled}
- B08B 9/0492 { Heavy-type cleaning devices, e.g. crawlers with plural cleaning members (B08B 9/051 takes precedence)}
- B08B 9/0495 { Nozzles propelled by fluid jets}
- B08B 9/0497 { provided with additional mechanical cleaning tools}
- B08B 9/051 the cleaning devices having { internal} motors [e.g. turbines] for powering cleaning tools
- B08B 9/053 moved along the pipes by a fluid, e.g. by fluid pressure or by suction
- B08B 9/0535 { the cleaning device being restricted in its movement by a cable or the like}
- B08B 9/055 the cleaning devices conforming to, or being conformable to, substantially the same cross-section of the pipes, { e.g. pigs or moles (pigs or moles per se F16L 55/26; their launching and detection F16L 55/46; separating pigs in pipelines F17D 3/00)}
- B08B 9/0551 { Control mechanisms therefor}
- B08B 9/0552 { Spherically shaped pigs}
- B08B 9/0553 { Cylindrically shaped pigs}
- B08B 9/0554 { Diablo shaped pigs}
- B08B 9/0555 { Gelled or degradable pigs}
- B08B 9/0556 { at least partially formed of a frozen liquid or gas}
- B08B 9/0557 { Pigs with rings shaped cleaning members, e.g. cup shaped pigs}
- B08B 9/0558 { with additional jet means}
- B08B 9/057 the cleaning devices being entrained discrete elements, e.g. balls, grinding elements, brushes

- B08B 9/08 Cleaning containers, e.g. tanks
- B08B 9/0804 {Cleaning containers having tubular shape, e.g. casks, barrels, drums (B08B 9/20 take precedence)}
- B08B 9/0808 {by methods involving the use of tools, e.g. by brushes, scrapers}
- B08B 9/0813 {by the force of jets or sprays}
- B08B 9/0817 {by agitating or tumbling containers filled with liquid or liquid and abrasive, e.g. chain}
- B08B 9/0821 {Handling or manipulating containers, e.g. moving or rotating containers in cleaning devices, conveying to or from cleaning devices (B08B 9/20 takes precedence)}
- B08B 9/0826 {the containers being brought to the cleaning device}
- B08B 9/083 {Removing scrap from containers, e.g. removing labels}
- B08B 9/0835 {Removing remnants of closures from bottle necks}
- B08B 9/0839 {Cleaning milk churns (B08B 9/0804, B08B 9/20 take precedence)}
- B08B 9/0843 {for large numbers of milk churns}
- B08B 9/0848 {Devices for inverting or emptying milk churns, applying or unseating covers}
- B08B 9/0852 {Drainage racks (see also A47J 47/20)}
- B08B 9/0856 {Cleaning of water-treatment installations}
- B08B 9/0861 {Cleaning crates, boxes or the like (B08B 9/083 takes precedence)}

- B08B 9/0865 .. {by burning-out ([B08B 9/40](#) takes precedence)}
- B08B 9/087 .. by methods involving the use of tools, e.g. brushes, scrapers ({[B08B 9/0808](#), [B08B 9/20](#) take precedence})
- B08B 9/093 .. by the force of jets or sprays ({[B08B 9/0813](#), [B08B 9/20](#) take precedence})
- B08B 9/0933 ... {Removing sludge or the like from tank bottoms}
- B08B 9/0936 ... {using rotating jets}
- B08B 9/20 .. by using apparatus into or on to which containers e.g. bottles, jars, cans are brought {(washing or rinsing crockery or tableware [A47L 15/00](#))}
- B08B 9/205 ... {Conveying containers to or from the cleaning machines}
- B08B 9/22 ... the apparatus cleaning by soaking alone
- B08B 9/24 and having conveyers
- B08B 9/26 Rotating conveyers
- B08B 9/28 ... the apparatus cleaning by splash, spray, or jet application, with or without soaking
- B08B 9/283 { by gas jets}
- B08B 9/286 { the gas being ionized}
- B08B 9/30 and having conveyers
- B08B 9/32 Rotating conveyers
- B08B 9/34 Arrangements of conduits or nozzles
- B08B 9/36 ... the apparatus cleaning by using brushes
- B08B 9/38 ... the apparatus cleaning by using scrapers, chains, grains of shot, sand or other abrasive means (abrasive blasting in general [B24C](#))
- B08B 9/40 ... the apparatus cleaning by burning out
- B08B 9/42 ... the apparatus being characterised by means for conveying or carrying containers therethrough
- B08B 9/423 {Holders for bottles, cell construction}
- B08B 9/426 {Grippers for bottles}
- B08B 9/44 ... the means being for loading or unloading the apparatus
- B08B 9/46 .. Inspecting cleaned containers for cleanliness

- B08B 11/00** **Cleaning flexible or delicate articles by methods or apparatus specially adapted thereto ([B08B 3/12](#), [B08B 6/00](#) take precedence)**
- B08B 11/02 . Devices for holding articles during cleaning {([B08B 9/42](#) takes precedence)}
- B08B 11/04 . specially adapted for plate glass, e.g. prior to manufacture of windshields (cleaning the gap between permanently secured panes [E06B 3/677](#))

- B08B 13/00** **Accessories or details of general applicability for machines or apparatus for cleaning**

- B08B 15/00** **Preventing escape of dirt or fumes from the area where they are produced; Collecting or removing dirt or fumes from that area (parts, details or accessories of cooking-vessels for withdrawing or condensing cooking vapours from such vessels [A47J 36/38](#); refuse disposal [B65E](#); devices for conducting smoke or fumes, e.g. flues,**

[F23J 11/00](#); removing cooking fumes from domestic stoves or ranges [F24C 15/20](#); air conditioning, ventilation [F24F](#))

- B08B 15/002
 - . {using a central suction system, e.g. for collecting exhaust gases in workshops (removing dust from textile machines [D01H 11/00](#); ventilation of mines, galleries or tunnels, e.g. traffic tunnels, [E21F 1/00](#))}
- B08B 15/005
 - .. {comprising a stationary main duct with one or more branch units, the branch units being freely movable along a sealed longitudinal slit in the main duct}
- B08B 15/007
 - . {Fume suction nozzles arranged on a closed or semi-closed surface, e.g. on a circular, ring-shaped or rectangular surface adjacent the area where fumes are produced ([B08B 15/04](#) takes precedence)}
- B08B 15/02
 - . using chambers or hoods covering the area {([B08B 15/002](#) takes precedence)}
- B08B 15/023
 - .. {Fume cabinets or cupboards, e.g. for laboratories}
- B08B 15/026
 - .. {Boxes for removal of dirt, e.g. for cleaning brakes, glove- boxes}
- B08B 15/04
 - . from a small area, e.g. a tool {(removing chips [B23Q 11/0042](#))}
- B08B 17/00**

Methods preventing fouling {(preventing accumulation of deposits in pneumatic conveyers [B65G 53/521](#))}
- B08B 17/02
 - . Preventing deposition of fouling or of dust
- B08B 17/025
 - .. { Prevention of fouling with liquids by means of devices for containing or collecting said liquids}
- B08B 17/04
 - .. by using removable coverings
- B08B 17/06
 - .. by giving articles subject to fouling a special shape or arrangement
- B08B 17/065
 - ... { the surface having a microscopic surface pattern to achieve the same effect as a lotus flower}
- B08B 2200/00**

Dummy title
- B08B 2203/00**

Details of cleaning machines or methods involving the use or presence of liquid or steam
- B08B 2203/002
 - . the liquid being a degassed liquid
- B08B 2203/005
 - . the liquid being ozonated
- B08B 2203/007
 - . Heating the liquid
- B08B 2203/02
 - . Details of machines or methods for cleaning by the force of jets or sprays
- B08B 2203/0205
 - .. Bypass pressure relief valves

- B08B 2203/0211 . . Case coverings
- B08B 2203/0217 . . Use of a detergent in high pressure cleaners; arrangements for supplying the same
- B08B 2203/0223 . . Electric motor pumps
- B08B 2203/0229 . . Suction chambers for aspirating the sprayed liquid
- B08B 2203/0235 . . Cooling the motor pump
- B08B 2203/0241 . . Combustion motor pumps
- B08B 2203/0247 . . Hose joints, e.g. quick joints, rotating joints
- B08B 2203/0252 . . Ecological type pressure cleaners, e.g. by pressure intensifiers
- B08B 2203/0258 . . Multiple lance high pressure cleaning station
- B08B 2203/0264 . . Splash guards
- B08B 2203/027 . . Pump details
- B08B 2203/0276 . . Hose reels specific for high pressure cleaners
- B08B 2203/0282 . . Safety devices
- B08B 2203/0288 . . Ultra or megasonic jets
- B08B 2203/0294 . . Wobbling swash plates for high pressure cleaners

B08B 2205/00 Details of machines or methods for cleaning by the use of gas or air flow

- B08B 2205/005 . Using the coanda effect of the gas flow/stream

B08B 2209/00 Details of machines or methods for cleaning hollow articles

- B08B 2209/005 . Use of ultrasonics or cavitation, e.g. as primary or secondary action
- B08B 2209/02 . Details of apparatuses or methods for cleaning pipes or tubes
- B08B 2209/022 . . making use of the reversal flow of the cleaning liquid
- B08B 2209/024 . . by creating a shock wave in the cleaning liquid
- B08B 2209/027 . . for cleaning the internal surfaces
- B08B 2209/032 . . . by the mechanical action of a moving fluid
- B08B 2209/04 . . . using cleaning devices introduced into and moved along the pipes
- B08B 2209/045 Making cleaning devices buoyant within a pipeline to be cleaned
- B08B 2209/053 being moved along the pipes by a fluid, e.g. by fluid pressure or by suction
- B08B 2209/055 the cleaning devices conforming to, or being conformable to, substantially the same cross-section of the pipes, e.g. pigs or moles
- B08B 2209/0553 Pigs provided with detection means
- B08B 2209/0556 the detection means being magnets
- B08B 2209/08 . Details of machines or methods for cleaning containers, e.g. tanks
- B08B 2209/085 . . Cleaning flexible bags

B08B 2215/00 Preventing escape of dirt or fumes from the area where they are produced; Collecting or removing dirt or fumes from that area

- B08B 2215/003 . with the assistance of blowing nozzles

B08B 2215/006 . Suction tables

B08B 2220/00 Type of materials or objects being removed

B08B 2220/01 . Adhesive materials

B08B 2220/02 . Chewing gum

B08B 2220/04 . Polymers

B08B 2230/00 Other cleaning aspects applicable to all B08B range

B08B 2230/01 . Cleaning with steam

B08B 2240/00 Type of materials or objects being cleaned

B08B 2240/02 . Optical fibers or optical fiber connectors